

Potential Nutrition Implications of Autism

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Today

Define and describe autism spectrum disorder

Review common feeding and nutrition problems in children with autism spectrum disorder

Discuss signs that a child may need a feeding evaluation and intervention

List types of interventions for feeding problems

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1. Define and describe autism spectrum disorder

3

What is autism spectrum disorder?

- A developmental disability that can cause significant social, communication and behavioral challenges.
- Prevalence: 1 in 59 children
- Occurs in all racial, ethnic, socio economic groups
- Four times more common in boys than girls

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Autism Spectrum Disorder

```
graph TD; A[Autism] --> B[Social Communication Difficulties]; A --> C[Fixated interests and repetitive behaviors];
```

- Characteristics vary with age and development
- Symptoms are present in the first 2 years of life
- Defined solely on behavior
- No neurobiological marker
- Likely a result of many causes, strong genetic component
- It is lifelong

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Social Communication Difficulties

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graph LR; A[DEFICIT IN SOCIAL-EMOTIONAL RECIPROCITY]; B[DEFICIT IN NON-VERBAL COMMUNICATION USED FOR SOCIAL INTERACTION]; C[DEFICIT IN DEVELOPING, MAINTAINING, AND UNDERSTANDING RELATIONSHIPS];
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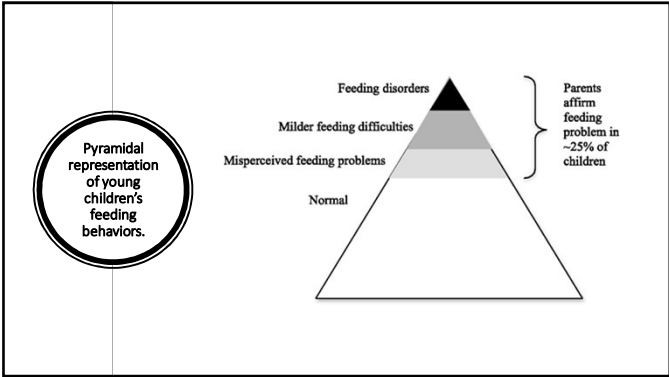
Restricted interests, repetitive behaviors

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graph LR; A[Stereotypical or repetitive motor movements, use of objects, speech]; B[Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior]; C[Highly restricted, fixated interests that are abnormal in intensity or focus]; D[Hyper- or hypo-reactivity to sensory input or unusual interests in sensory aspects of environment];
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2. Review common feeding and nutrition problems in children with autism spectrum disorder


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What is a Pediatric Feeding Disorder?


"A pediatric feeding disorder is defined as impaired oral intake that is not age-appropriate, and is associated with medical, nutritional, feeding skill, and/or psychosocial dysfunction." (Godav, et al., JPGN 2019; 68:124-129)



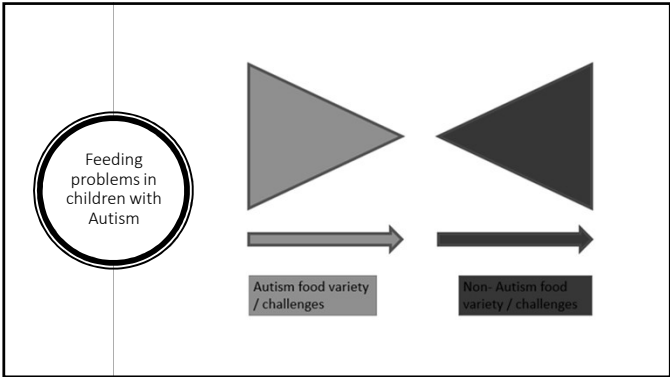
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Feeding Problems in Children with ASD

- 89% of children with ASD are said to have food selectivity
- Fewer foods from all food groups



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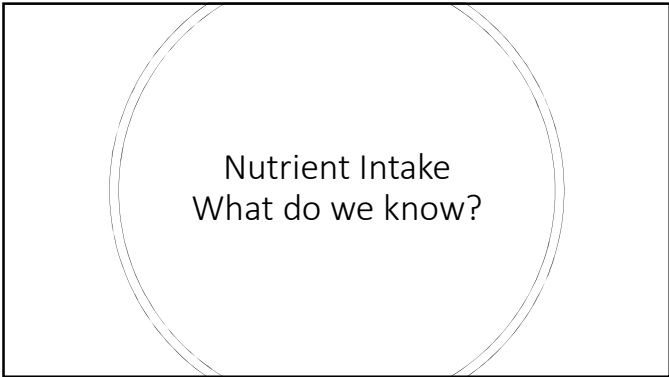
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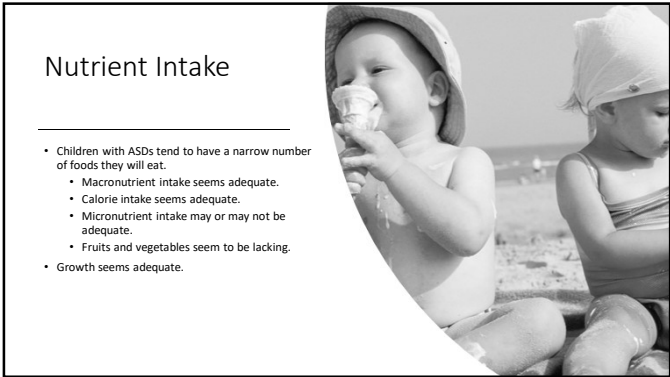
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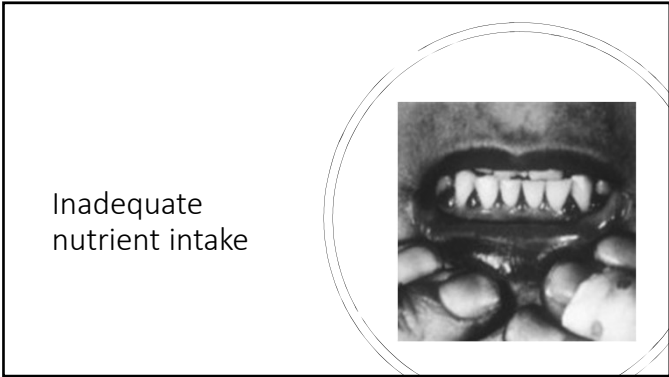
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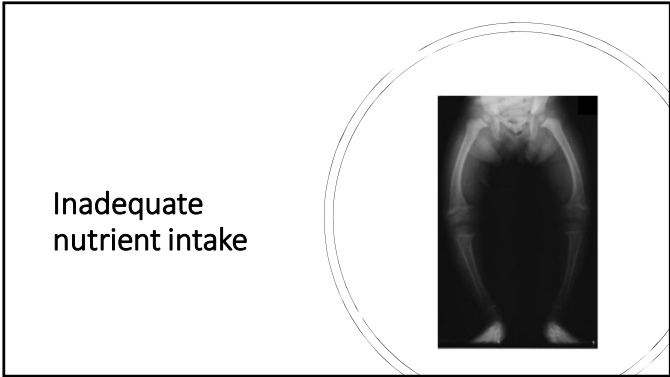
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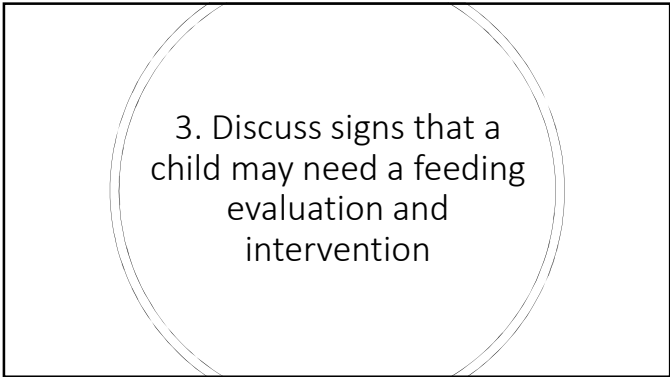
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7 year old boy
with autism



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Child's
Development
& Behavior

Severe cognitive delay

Communicate through gestures and manual signs

Ambulates independently

Has anxiety

Lacks social skills, bothers others

Engages in hand flapping

Throws things, has temper tantrums

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Feeding
Concerns

Does not eat enough healthy foods

Has inappropriate mealtime behaviors

Eats too much

Eats mostly junk food

Cries and tantrums at meals

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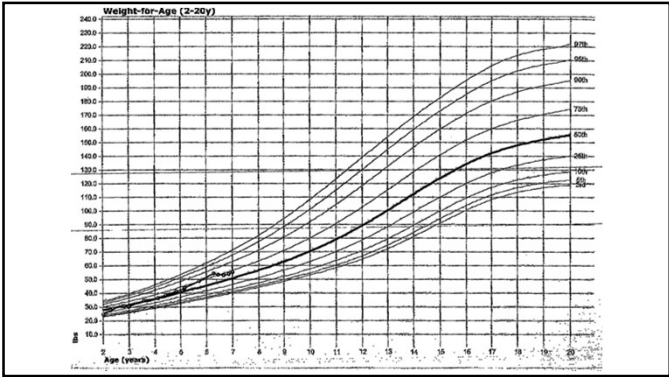
Breakfast	Waffles / Syrup	1
Lunch	Peas, Bread	1
Dinner	Chicken, Rice	1
Snack	Apple, Juice	1
Bedtime	Milk	1

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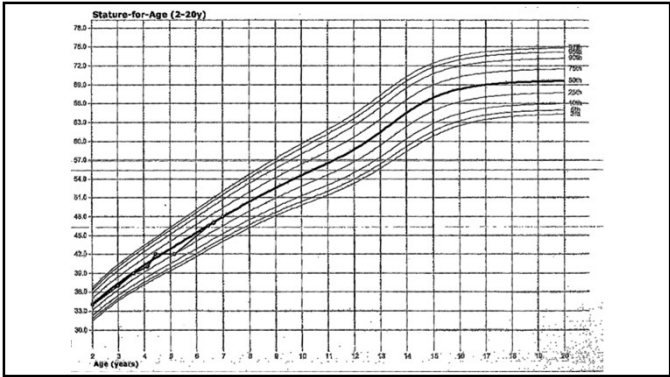
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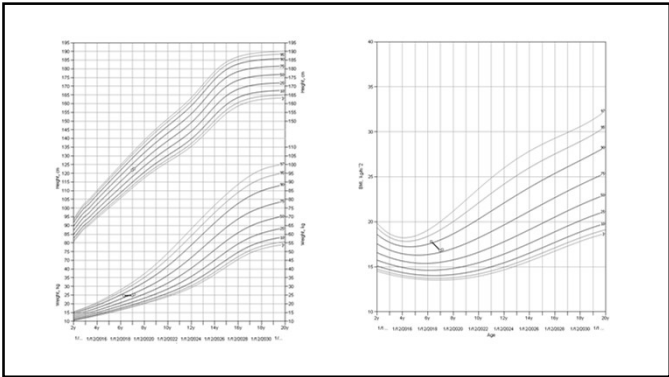
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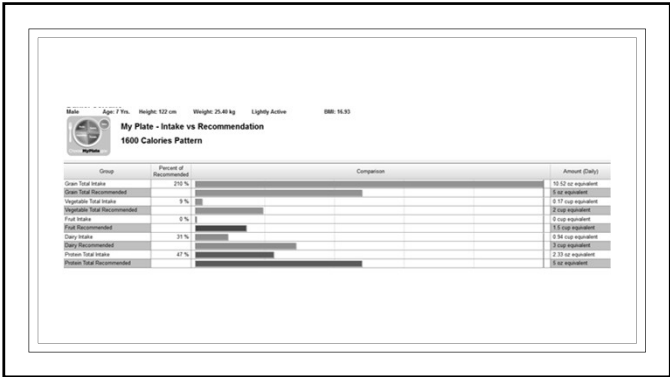
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Medications

- Anti-reflux / Acid Reducers: Tagamet, Prilosec, Prevacid, Nexium, Maalox
- Motility: Reglan, Erythromycin
- Appetite stimulants: Periactin


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Occupational and Speech Therapy

- Broad sensory integration therapy (OT)
- Sequential Oral Sensory Therapy
- Food Chaining




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Behavioral Treatments

- Applied Behavior Analysis
 - More focus on data
 - Slow systematic changes
- Considerable overlap with other therapies

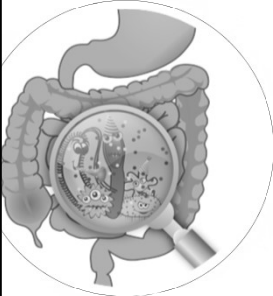
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Dietary Restrictions to Address Symptoms

- Gluten
- Casein
- Specific Carbohydrates

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Consensus Report

- Gastrointestinal issues are common in children with and without autism.
- Some people with autism may benefit from diet interventions.
- There are potential nutrition problems in children with autism.
- Professional guidance is needed if a child is placed on a special diet.

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The Gluten Free Casein Free Diet

- Eliminates gluten:
 - Barley
 - Rye
 - Oats
 - Wheat
- Eliminates Casein (all products derived from milk and dairy).

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GFCF Diet – What does the research say?

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Summary

Autism is a common neurodevelopmental disorders with symptoms evident in early childhood

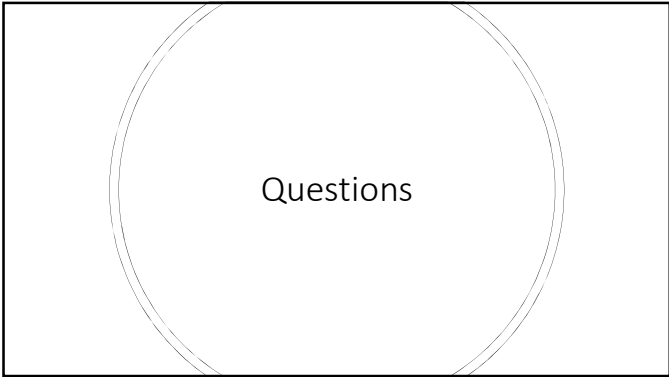
Many children with autism have feeding difficulties

Feeding challenges can have serious health consequences

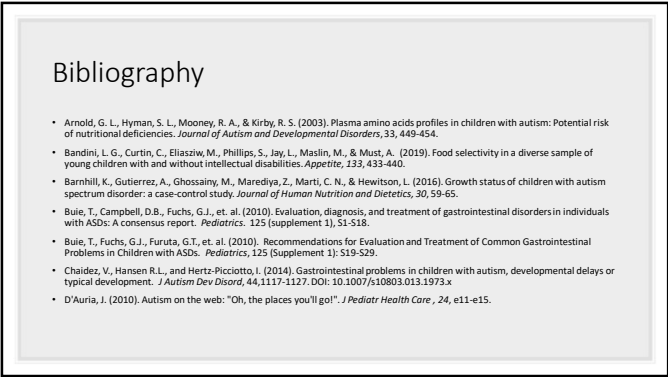
Children with feeding disorders need multidisciplinary evaluation and treatment

The Registered Dietitian/Nutritionist is an integral part of the team working with children with autism with feeding disorders

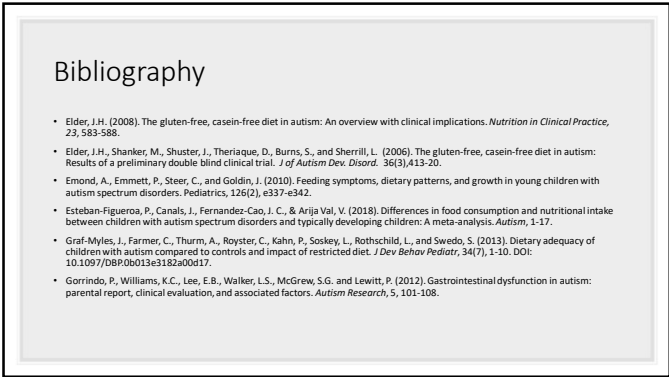
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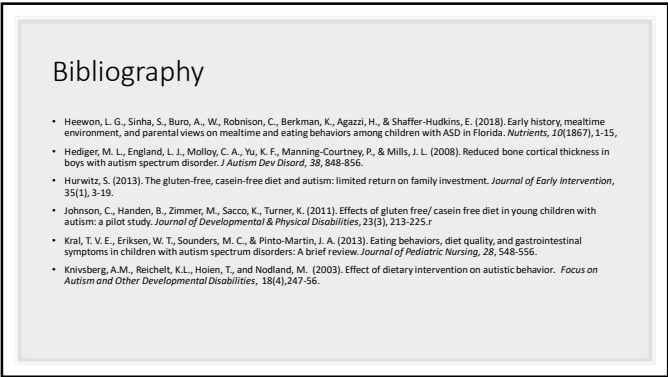
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